

Notice of Allowability

Application No.

10/659,452

Examiner

Tuan T. Dinh

Applicant(s)

LARSON, THANE M.

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 08/17/07 and interview on 10/22/07.
2. ☒ The allowed claim(s) is/are 13,15-20,30-33 (renumber claims are 1-11).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 10/22/07.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Arnold M. de Guzman (Reg. No. 39,955) on 10/22/07.

The application has been amended as follows:

Cancel claim 14 without prejudice.

Claim 15, line 2, change "of claim 14" to - - of claim 13 - -.

For claim 13, the amendment of claim 13 would be shown below:

Claim 13 (**Twice Currently Amended**): An assembled substrate, comprising:

a substrate having a first side and a second side, and a first electrical contact area on said first side and a second electrical contact area on said second side;

an electrical component having a plurality of leads electrically connected to said first electrical contact area of said substrate; and

a capacitor plate electrically connected to said second electrical contact area on said second side of said substrate substantially opposite said first electrical contact area of said substrate;

wherein the capacitor plate has a selected capacitance value that provides decoupling capacitance to the leads, and wherein each ground plane in the capacitor plate is disposed between a first pair of dielectric layers and each power plane in the capacitor plate is disposed between a second pair of dielectric layers, and wherein a first contact pad is connected to the ground plane and a second contact pad is connected to the power plane, and wherein the capacitor plate comprises a top surface that includes a first dielectric layer and a bottom surface that includes a second dielectric layer,

wherein said assembled substrate further comprises:

a first interposer between said component and said first electrical contact area on said first side of said substrate; and

a second interposer between said capacitor plate and said second electrical contact area on said second side of said substrate.

Allowable Subject Matter

2. Claims 13, 15-20, and 30-33 are allowed (renumber claims are 1-11).

The following is an examiner's statement of reasons for allowance: The prior arts fails to teach or obvious in combination of an assembled substrate having a first interposer between said component and said first electrical contact area on said first side of said substrate; and a second interposer between said capacitor plate and said second electrical contact area on said second side of said substrate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gutierrez F. Diego can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Tuan Dinh
October 22, 2007.



TUAN T. DINH
PRIMARY EXAMINER

10/22/07.